

# APPENDIX F: SKERRIT ROUNDABOUT DETAILED MCA

Stage 2		Section 2 - Skerrit Roundabout		
Assessment Criteria	Sub-Criteria	Option 1	Option 2	Option 3
Economy	Capital Cost	Option 2 would cost less to implement than Options 1 & 2.	Option 2 would cost less to implement than Options 1 & 2.	Option 2 would cost less to implement than Options 1 & 2.
	Rank			
	Bus Journey Time and Reliability	Options 1 & 3 perform better for average journey time than Option 2 as it allows busses to get to the stop line of the junction in both directions, and the signals can be controlled to give busses priority through the junction, this would not be possible for Option 2.	Options 1 & 3 perform better for average journey time than Option 2 as it allows busses to get to the stop line of the junction in both directions, and the signals can be controlled to give busses priority through the junction, this would not be possible for Option 2.	Options 1 & 3 perform better for average journey time than Option 2 as it allows busses to get to the stop line of the junction in both directions, and the signals can be controlled to give busses priority through the junction, this would not be possible for Option 2.
	Rank			
Integration	Land Use Integration	All routes follow the existing road, and no changes in land use of the area is anticipated as a result of either route option.  For this reason all options score equally for this criterion.	All routes follow the existing road, and no changes in land use of the area is anticipated as a result of either route option.  For this reason all options score equally for this criterion.	All routes follow the existing road, and no changes in land use of the area is anticipated as a result of either route option.  For this reason all options score equally for this criterion.
	Rank			
	Transport Integration	Signalising the junction allows all arms of the junction to be given appropriate levels of priority, this is particularly useful in times of heavy traffic flows to ensure that the less busy roads manage to pass through the junction. So options 1 and 3 perform better in this regard.  The design of option 3 however is particularly suited to efficient management of traffic, with a combined separate pedestrian cycle stage in overall signal plan. This benefits all road users and for this reason scores better for Transport Integration than options 1 and 2.	Signalising the junction allows all arms of the junction to be given appropriate levels of priority, this is particularly useful in times of heavy traffic flows to ensure that the less busy roads manage to pass through the junction. So options 1 and 3 perform better in this regard.  The design of option 3 however is particularly suited to efficient management of traffic, with a combined separate pedestrian cycle stage in overall signal plan. This benefits all road users and for this reason scores better for Transport Integration than options 1 and 2.	Signalising the junction allows all arms of the junction to be given appropriate levels of priority, this is particularly useful in times of heavy traffic flows to ensure that the less busy roads manage to pass through the junction. So options 1 and 3 perform better in this regard.  The design of option 3 however is particularly suited to efficient management of traffic, with a combined separate pedestrian cycle stage in overall signal plan. This benefits all road users and for this reason scores better for Transport Integration than options 1 and 2.
	Rank			
	Cyclist Integration	Options 1 & 3 provide a more direct route for cyclists.  For this reason options 1 & 3 perform better for cyclist integration.  Furthermore Option 3 has less signal phases and one dedicated to pedestrian and circulating cyclists meaning an improved quality of service, and for this reason scores better for Cyclist Integration than option 1.	Options 1 & 3 provide a more direct route for cyclists.  For this reason options 1 & 3 perform better for cyclist integration.  Furthermore Option 3 has less signal phases one one dedicated to pedestrian and circulating cyclists meaning an improved quality of service, and for this reason scores better for Cyclist Integration than option 1.	Options 1 & 3 provide a more direct route for cyclists.  For this reason options 1 & 3 perform better for cyclist integration.  Furthermore Option 3 has less signal phases one one dedicated to pedestrian and circulating cyclists meaning an improved quality of service, and for this reason scores better for Cyclist Integration than option 1.
	Rank			
Pedestrian Integration	Options 1 & 3 provide a more direct route for pedestrians.  For this reason options 1 & 3 perform better for pedestrian integration.  Furthermore Option 3 has less signal phases one one dedicated to pedestrian and circulating cyclists meaning an improved quality of service, and for this reason scores better for pedestrian Integration than option 1.	Options 1 & 3 provide a more direct route for pedestrians.  For this reason options 1 & 3 perform better for pedestrian integration.  Furthermore Option 3 has less signal phases one one dedicated to pedestrian and circulating cyclists meaning an improved quality of service, and for this reason scores better for pedestrian Integration than option 1.	Options 1 & 3 provide a more direct route for pedestrians.  For this reason options 1 & 3 perform better for pedestrian integration.  Furthermore Option 3 has less signal phases one one dedicated to pedestrian and circulating cyclists meaning an improved quality of service, and for this reason scores better for pedestrian Integration than option 1.	
Rank				
Accessibility and Social Inclusion	Vulnerable Groups	As options 1 & 3 provide a more direct route for pedestrians they are likely to serve vulnerable groups better.	As options 1 & 3 provide a more direct route for pedestrians they are likely to serve vulnerable groups better.	As options 1 & 3 provide a more direct route for pedestrians they are likely to serve vulnerable groups better.
	Rank			
Safety	Road Safety	Options 1 & 3 perform better for this criterion. This is because the crossing locations for cyclists and pedestrians are provided on the direct desire lines of the users. For Option 2 the crossings are set back from the junction which may encourage cyclists and pedestrians to cross at locations that aren't the controlled crossings. Furthermore, signalising the junction would improve the safety for general traffic.  Furthermore Option 3 has cyclists on a separate signal phase than general traffic, meaning that it performs better for road safety than Option 1.	Options 1 & 3 perform better for this criterion. This is because the crossing locations for cyclists and pedestrians are provided on the direct desire lines of the users. For Option 2 the crossings are set back from the junction which may encourage cyclists and pedestrians to cross at locations that aren't the controlled crossings. Furthermore, signalising the junction would improve the safety for general traffic.  Furthermore Option 3 has cyclists on a separate signal phase than general traffic, meaning that it performs better for road safety than Option 1.	Options 1 & 3 perform better for this criterion. This is because the crossing locations for cyclists and pedestrians are provided on the direct desire lines of the users. For Option 2 the crossings are set back from the junction which may encourage cyclists and pedestrians to cross at locations that aren't the controlled crossings. Furthermore, signalising the junction would improve the safety for general traffic.  Furthermore Option 3 has cyclists on a separate signal phase than general traffic, meaning that it performs better for road safety than Option 1.
	Rank			

Stage 2		Section 2 - Skerrit Roundabout		
Assessment Criteria	Sub-Criteria	Option 1	Option 2	Option 3
Environment	Archaeological, Architectural and Cultural Heritage	No impacts anticipated, all options perform equally for this criterion.	No impacts anticipated, all options perform equally for this criterion.	No impacts anticipated, all options perform equally for this criterion.
	Rank			
	Biodiversity	SPA and SAC boundary within 1km of southern most section of the roundabout. Tree removal could disturb/impact birds if undertaken during the breeding season. Young tree removal from southern section. Non-native flora species present in the south-east section.	Less grassland / treeline removal than option 1	As Option 1
	Rank			
	Soils and Geology	No issues with soil and geology anticipated as a result of any options.  All options perform equally for this criterion.	No issues with soil and geology anticipated as a result of any options.  All options perform equally for this criterion.	No issues with soil and geology anticipated as a result of any options.  All options perform equally for this criterion.
	Rank			
	Landscape and visual	Rebuild as signalised junction as per BusConnects Guidance. This option has less land take for roads/hard surface and allow for greater useable green/open space next to adjacent land use.	Minimal intervention and retention of the planted roundabout.	Rebuild as signalised "Cyclops" style junction. This option has less land take for roads/hard surface and allow for greater useable green/open space next to adjacent land use.
	Rank			
	Noise, vibration and air quality	<p><b>Air Quality:</b> Rebuilds the existing roundabout to a signalised junction, with dedicated bus and cycling lanes. While this may increase the modal share of these forms of transport, the potential for associated reduction of emissions may be offset by signalising the junction. The existing roundabout allows for higher speeds than a signalised junction, as lower speeds increase traffic related emissions.</p> <p><b>Noise:</b> Rebuilds the existing roundabout to a signalised junction, with dedicated bus and cycling lanes. Unlikely to result in any notable change of traffic noise at NSRs set back some 90m from roundabout</p>	<p><b>Air Quality:</b> Retains the existing roundabout, while introducing signalised toucan crossing. This may reduce traffic speeds on the approaches, however these would likely still be higher than speeds in Option 1.</p> <p><b>Noise:</b> Retains the existing roundabout, while introducing signalised toucan crossing. Unlikely to result in any notable change of traffic noise at NSRs set back some 90m from roundabout</p>	<p><b>Air Quality:</b> Rebuilds the existing roundabout to a signalised Cyclops junction, with dedicated bus and cycling lanes. While this may increase the modal share of these forms of transport, the potential for associated reduction of emissions may be offset by signalising the junction. The existing roundabout allows for higher speeds than a signalised junction, as lower speeds increase traffic related emissions.</p> <p><b>Noise:</b> Rebuilds the existing roundabout to a "Cyclops" style junction with dedicated bus and cycling lanes. Unlikely to result in any notable change of traffic noise at NSRs set back some 90m from roundabout</p>
	Rank			
	Land Use and Built Environment	No options require land take or impact nearby properties.  For this reason all options score equally for this criterion.	No options require land take or impact nearby properties.  For this reason all options score equally for this criterion.	No options require land take or impact nearby properties.  For this reason all options score equally for this criterion.
	Rank			
	Climate and Carbon	Accommodating for buses and active travel modes, providing dedicated bus and cycling lanes compared to both the Do Minimum and Option 2.	Minimal difference in climate impacts compared to Do Minimum. No dedicated bus or cycling lanes proposed.	Most accommodating for buses and active travel modes, providing dedicated bus and cycling lanes compared to both the Do Minimum and Option 2.
	Rank			